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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,809	02/28/2002	James Austin Kendrick	98B014E	3259
23455	7590	10/05/2005	EXAMINER	
EXXONMOBIL CHEMICAL COMPANY 5200 BAYWAY DRIVE P.O. BOX 2149 BAYTOWN, TX 77522-2149			NECKEL, ALEXA DOROSHENK	
		ART UNIT		PAPER NUMBER
				1764

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/085,809	KENDRICK ET AL.
	Examiner Alexa D. Neckel	Art Unit 1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 14 July 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.  
 4a) Of the above claim(s) 1-6 and 26-28 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 7-25 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date 7/21/05.
- 4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Election/Restrictions***

1. Applicant's election with traverse of claim(s) 7-25 in the paper filed July 14, 2005 is acknowledged. The traversal is on the ground(s) that the examiner has not established that a serious burden exists if restriction is not required. This is not found persuasive because establishing that the inventions are classified in different classes and/or subclasses establishes that a serious burden exists on the examiner if restriction is not required. The restriction requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7-25 continue to be rejected under 35 U.S.C. 103(a) as being unpatentable over McElvain et al. (WO 01/05842 A1) and Palmroos (WO 96/18662).

McElvain et al. discloses an apparatus which comprises a loop reactor (10) with at least 8 vertical legs (see figure 1), at least two non-vertical runs which are connected with two vertical legs(see figure 1), at least two feed inlets (30, 32) and at least two continuous discharge conduits (figure 8b). McElvain et al. does not teach reconfiguring their apparatus into two connected closed loop reactors.

Palmroos discloses that connected multiple connected loop reactors (10, 20), each with its own inlet (18, 22) and outlet (21, 27), allow for optimization of reaction stages (p. 5, lines 4-31).

It is well within the skill of one of ordinary skill in the art to be able to connect and disconnect the various elements of the known loop reactor of McElvain et al. to form multiple connected loop reactors of Palmroos, and one would be motivated to do so in order to gain further control of various reaction stages and optimization of reaction stages. Obviousness may sometimes be based on the common knowledge of persons skilled in the art without relying on a specific suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

### ***Response to Arguments***

#### **Specification**

The objections to the specification are withdrawn due to applicant's amendments.

#### **35 USC 103**

Applicant argues that McElvin does not teach or suggest at least two feed inlets and that Palmroos does not teach or suggest at least 8 vertical legs.

With regard to McElvin, two inlets are in fact shown as reference numbers 20 and 32.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

1986). In this case McElvin is shown as providing a reactor with at least 8 vertical legs, Palmroos is cited to teach the connection of multiple loop reactors in series.

Applicant argues that the combination of references would result in redundant conduits and one loop having no discharge.

Once again, it is well within the skill of one of ordinary skill in the art to be able to connect and disconnect the various elements of the known loop reactor of McElvain et al. to form multiple connected loop reactors of Palmroos, and one would be motivated to do so in order to gain further control of various reaction stages and optimization of reaction stages. Obviousness may sometimes be based on the common knowledge of persons skilled in the art without relying on a specific suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

One of ordinary skill in the art would have the knowledge to provide the clearly needed inlets and outlets (also as shown in Palmroos) in order to make the loop reactors connected in series to be operable.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa D. Neckel whose telephone number is 571-272-1446. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alexa D. Neckel  
Examiner  
Art Unit 1764

October 3, 2005

*Alexa D. Neckel*  
ALEXANDROSHENK NECKEL  
PRIMARY EXAMINER